

VARIABLE AIR VOLUME ENVIRONMENTAL MANAGEMENT
SYSTEM INCLUDING A FUZZY LOGIC CONTROL SYSTEM

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ABSTRACT OF THE DISCLOSURE

A controller for a variable air volume terminal of a
variable air volume air conditioning system which
comprises a temperature sensing circuitry for generating
a temperature process value, a setpoint determining
circuitry for establishing a temperature setpoint, an
airflow signal circuitry for generating an airflow
setpoint in response to the temperature process value and
the temperature setpoint. A flow sensing circuitry for
generating a flow process value in response to a
predetermined set of flow sensing inputs and damper
control circuitry for generating a damper motor operation
signal to control the damper motor in response to the
flow process value and the airflow setpoint. The damper
control circuitry comprises a fuzzy logic control
mechanism for implementing a set of fuzzy logic rule-
based instructions in generating the damper motor
operating signal.

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